



Surgeon General's Office

LIBRARY

Section,

Med. Hist.

No.

219.27

IMPROVED
GALVANISMUS,

AND

ITS MEDICAL APPLICATION.

BY S. N. NIDERBURG, *M.D.*

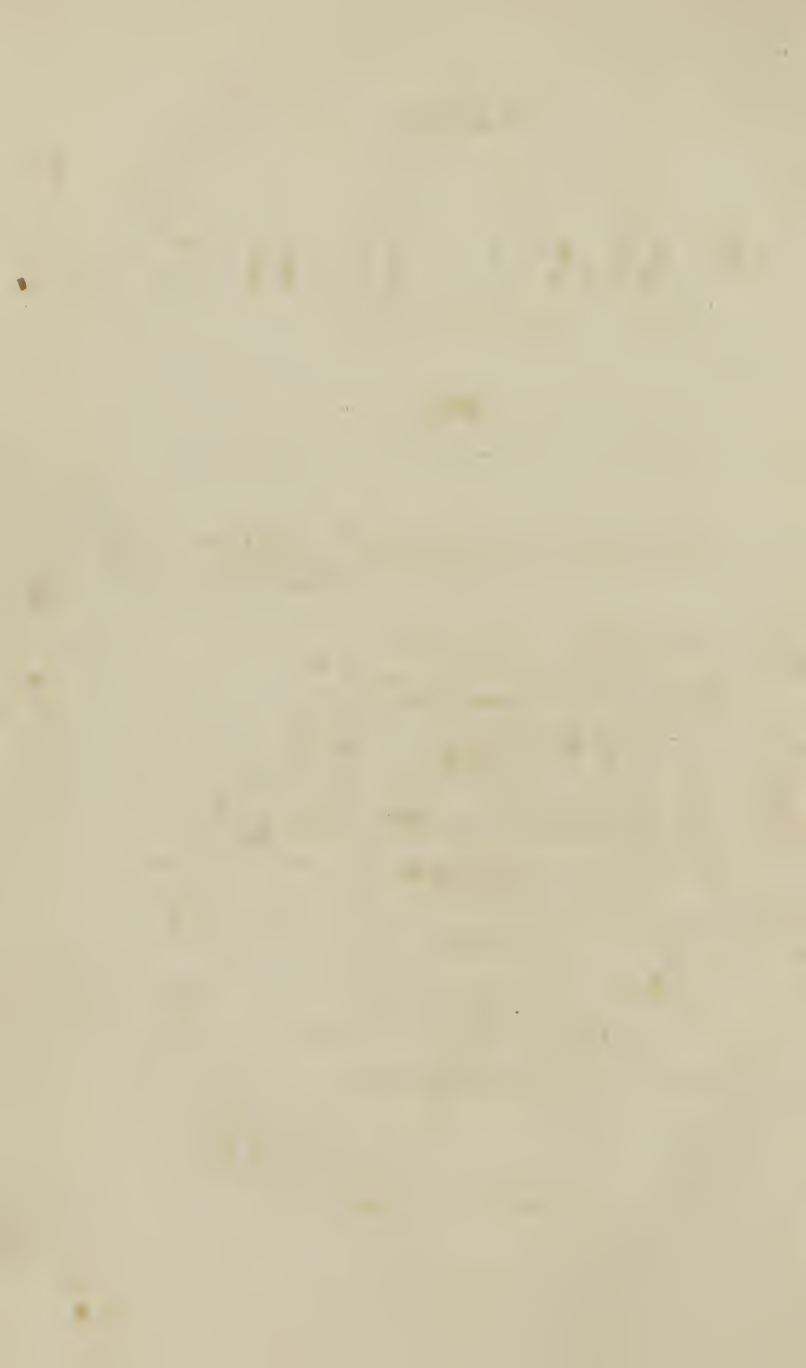
AND MEMBER OF THE FACULTY OF
VIENNA.

219.57
NEW-YORK:

PRINTED BY GEORGE FORMAN, NO. 64, WATER-STREET,

FOR THE AUTHOR.

1803.



PREFACE.

IT is not my intention, nor have I room in this small treatise to enter fully upon the principles of the Galvanic system, and its coincidence with the natural laws that operate in all organic bodies. My intention is only to make the American public acquainted with a discovery, highly important to humanity.—The laws of nature do not admit of miracles ; therefore the Galvanic system cannot produce the desired effect in all cases, but it has produced and will produce surprising effects in many cases. In some it is quite ineffectual—in some the cure is quick, and in most cases a restoration of health and vigor is produced by degrees, and requires patience and perseverance.

THE AUTHOR.

IMPROVED GALVANISMUS.

IT is a truth long since established among physiologists, that the manifold appearances in the animal and especially in the human body cannot be explained merely by the usual laws of mechanism and hydraulics as they are explained in the inanimate nature. Life consists in certain matters, which by their various combinations and distributions preserve its continuance, promote the nutrition and growth of the body, and give rise to all those phenomena, which, by Organismus are offered to an inquisitive mind.—By this action, composed of fine and stronger materials, peculiar to an animal chemical process, the animal body is protected against the attacks of fermentation and putrification, which take place in the inanimate nature. The human body especially becomes pre-

pared thereby to withstand a series of years the influence of external objects, by which it is surrounded, and which on the contrary become useful to the continuation of life, and in creating the necessary irritability. But should this animal chemical process consist in such connexions only as we observe in the unorganised nature, and should in the human body only such matters operate as we find in the inanimate nature, how could such surprising appearances of life be effected?

Therefore, if we consider the true cause of all the functions of the human body, its variations in the preservation and propagation of our species, in short all the appearances that happen in the animal life in general, and in human life in particular, we must allow, that, though our life correspond in many respects with those processes which happen in the inanimate nature, yet that there must be matters, peculiar and of a finer kind by which the process of life is effected, and which contribute the most to its continuance. The correspondence of those matters whereby all the functions of the body operate with ease and to their purpose, we consider as a STATE OF HEALTH OF THE BODY.

But it may easily happen, that, from the great variety of connexions, and especially from the great influence of external objects upon those con-

nexions, the combination of those matters, necessary to life, may be deranged, and therefore interruptions must take place in the natural functions which are called INTERNAL DISEASES.

The nature and causes of those internal diseases we cannot know precisely, since the subtile matters and their combinations in a state of health, are unknown to us, and leave us to judge of their derangement only by the effects we perceive. We therefore must turn our attention to the state of irritation, that is, to the degree of irritability in the body.

The diseases, in which we must suppose a derangement in the combination of those subtile matters, are called NERVOUS DISEASES, in which, without discovering any external appearance, we observe a violent derangement in the functions of the most important organs of the human body, viz. the organs that give the power of feeling and moving. For, the functions of those nerves, operate either too quick and violent, or they are weak and imperfect, or they cease to operate in some part altogether. If a physician wants to remove the cause of those complaints, he must know the means that have an immediate effect upon those fine matters, which cause the irritability of the nerves, whereby he can moderate its violence, or revive a slow acti-

on, or reinstate the lost activity. Most of the means known to us, in those cases, are such as are communicated throughout the body by means of the stomach, and whereby the irritation of the whole system may be augmented or extinguished. They operate upon the irritability of the whole body without confining their effect to a certain local organ, and are therefore in complaints of certain local organs only, less effectual than if the whole system were effected.

Hence it is evident that we must apply in such individual or local cases, such means as will vivify or reanimate the lost irritability in that local part. To this end a variety of means are used, such as rubbing and anointing the part afflicted, &c. &c. which however operate only on the surface of the skin or the parts immediately under the skin, but never on the deeper and real system of the nerves.

We can, therefore, acknowledge but three remedies, that surpass all others on account of their immediate influence on the nervous system and their analogy to those subtle matters that determine the activity of the nerves. Those are HEAT, ELECTRICITY, and GALVANISMUS.

The principles of heat and electricity are well known, and though efficacious in many cases, are

not so powerful a stimulus as Galvanismus, which is the most important physiological discovery of the last century.

Galvanismus is the principle of those appearances which we perceive by the alternative touch of the nerves and muscles with two different metals. The phenomena it produces are too remarkable not to have excited the attention of naturalists. Some professors of physic in different parts of Europe, foremost in talents, and unremitting in their study of the principles of nature, have, after many experiments, given their opinion decidedly in favor of Galvanismus, and even went so far as to declare that the life of organized bodies consist in a continual Galvanic activity.

But as Galvanismus, if applied, according to its first discovered principles, can stimulate a local or a certain afflicted part only, and never cure a patient whose whole system is relaxed, it was necessary to search for means, whereby the metallic fluid could be diffused throughout the whole system, for it is obvious that different methods are to be pursued with patients, afflicted at a certain organ only from those whose whole system is ailing, or, as it were, unhinged.

I have often assisted Mr. Galvani in making experiments during my stay at Padua, and, three years experience has taught me, by the additional or lower part of the machine, how to augment and decrease its power, according to the constitution of the patient, and the nature of the afflicted part, in all cases, without running any risk from the powerful influence of the metallic fluid. The chemical agency of the lower part of the machine (which I have lately erected in this city) is necessary not only to diffuse the fluid throughout the system, but also to draw from the body the overcharge of this fluid, which is so strong, that if applied by an unskilful operator, or is used unconnected with the lower or additional part of the machine, may render the eye blind and the ear deaf.

Stimulus is the certain result of Galvanismus, but this stimulus differs in its quality and force, and requires an operator well acquainted with the subject. The operator must know not only the different degrees of power of the machine, but also the degree of irritability of the suffering organ or of the whole system, and the causes and nature of the disease in each individual case, so as to apportion the degree of stimulus. The lower part of the machine erected by me, produces another and very important effect. It draws from the patient, if no cure can be effected, the metallic fluid, which

if neglected, might in some cases produce bad consequences, especially in the organs of the eyes and the ears.

Within the short time my machine has been in operation, I have afforded relief to many, and entirely cured some, who had been given up as incurable.

The afflictions of those that apply to this machine, are in general of such a nature, that no other physical remedy, however skilfully administered, is of any use, and, if among such cases, some become but partially relieved, and but few entirely cured, it is doing a great deal in behalf of suffering humanity.

Should any medical man be wishing to erect a machine for the good of humanity, I shall at all times be ready to give him such instructions as will enable him to use it with success.

It will naturally be asked, in which cases is Galvanismus efficacious ?

As Galvanismus operates powerfully upon the nerves, penetrates, and irritates them, quickens the circulation of the blood, increases pulsation, and therefore creates an artificial fever, it is evident

that in all chronical diseases, where a stagnation of the vital fluids takes place, an artificial fever is necessary to dissolve them, except in consumption, tooth-ach, and the gray star (cataract) in which cases the Galvanic stimulus would prove fatal.

The following are the Complaints in which Galvanism, in most cases, is efficacious.

LAMENESS

In the extremities, if the cause does not rest in the back bone,

CHRONICAL RHEUMATISM,

Local or general,

WEAKNESS IN THE EYES,

BLACK STAR (*AMOUROSIS*)

And *Gutta Serena*,

DEAFNESS,

Where the organs of the ears are not destroyed by ulceration, or the patient is not born with it, or where it does not proceed from a violent shock or blow, whereby the *tympanum* is cracked,

DEAFNESS,

The effect of catching cold, of the measles, small-pox, or fever, will easily be relieved,

LAMENESS

In the limbs, or in the urin bladder or in the *anus*,

FLUOR ALBUS,

OBSTRUCTION

In the *menses*,

HARDNESS OF THE WOMB,

DROPSICAL COMPLAINTS,

And hardness in the liver,

CANCERS,

If local, where the whole system of the glands
is not affected,

KINGS EVIL,

DUMBNESS,

If not born with it,

CHRONICAL WEAKNESS OF VOICE,

PODAGRA (GOUT)

WHITE SWELLING OF THE KNEE,

FITS,

If not proceeding from worms, or some derangement
in the organs,

PALSY,

DIABETES,

All IRRUPTIONS (except the itch, which
proceeds from a worm in the skin)

RUPTURES,

If not too old,

WEN (*STRUMA*)

NERVOUS HEAD-ACH,

INDIGESTION.

Every one without any physical knowledge, will
easily perceive that all the above mentioned complaints,
proceed from a state of weakness in the whole bodily system,
or from a partial weakness in

the afflicted part, or from both, that, therefore from the influence of the metallic fluid, which is so powerful a stimulus, the best effects may be expected. It is however in some cases necessary, at the same time to use inward remedies.

After a cure is effected, the same disorder will never return, unless the person should unfortunately meet with the same cause which produced the first.

Many who are thought to be incurable, will, by *Galvanismus*, be restored to health and vigor.



N. B. Patients who live at a distance, and wish to make use of the Galvanic machine, will please to state the nature of their complaints in writing, (post paid) or to request the physician they had employed, to write to me on the subject, which will enable me to judge whether a cure be possible.

